



NOTIFIED BODY  
No 0191

## CERTIFICATE OF TYPE EXAMINATION

(Marine Equipment Directive - 96/98/EC, as amended\*<sup>1</sup>)  
(Article 10.1(i) & Annex B, Module B)

**Applicant:-**  
Japan Radio Co., Ltd  
C/O Amsterdam Branch  
Cessnalaan 40-42  
1119 NL Schiphol-Rijk  
The Netherlands

**Manufacturer:-**  
Japan Radio Co., Ltd  
1-1 Shimorenjaku  
5-chome, Mitaka-Shi  
Tokyo 181-8510  
JAPAN

This is to certify that the applicant has submitted details of a:-

**MF/HF RADIO Capable of Transmitting and Receiving DSC, NBDP and Radiotelephony  
With Integrated 6 channel MF/HF DSC Watch-Keeping Receiver  
(Commission Directive 2010/68/EU – Item A.1/5.14 and Item A.1/5.15)**

Of system type known and designated as:-

- a) JRC GMDSS MF/HF 250W Radiotelephone - Type - JSS-296
- b) JRC GMDSS MF/HF 150W Radiotelephone - Type - JSS-296(150W)

(Comprising component parts and having technical characteristics shown in schedule 1)

and that this has been tested and assessed, and when used in a combination of component parts as described in the attached schedules, is CERTIFIED as complying with:

- EN 300 338:1999 "Transmission and Reception of Digital Selective Calling (DSC)"
- EN 300 373-1:2002 "Maritime Mobile Transmitters and Receivers for use in MF/HF Bands"
- ETS 300 067:1990 + A1:1993 "Radiotelex equipment operating in the Maritime MF/HF Service"
- EN 301 033:2005 "Shipborne Watchkeeping Receivers for DSC"
- IEC 60945 : 2002 "General Requirements for marine equipment" (inc. Corr1:2008)

(being specifications for technical characteristics and methods of measurements, published by the European Telecommunications Standards Institute and the International Electrotechnical Commission).

It is also RECOGNISED that the equipment conforms to performance standards not inferior to those adopted by the International Maritime Organisation, and which are contained in the relevant parts of Resolution A806(19), MSC 68(68) Annex 3, MSC/Circ 862 and Resolution A694(17)..

**SIGNED:**

**DATE of ISSUE:** 1<sup>st</sup> December 2011

**DATE of EXPIRY :** 30<sup>th</sup> November 2016

**R A Sharp**

**Authorised Signatory**

**Certificate Number:**

**QQ-MED-10/08-01R1**

**This Certificate is Valid until expiry date shown, subject to the standard conditions of issue printed on page 4.**

QinetiQ  
Cody Technology Park  
Ively Road, Farnborough  
Hampshire. GU14 0LX



Maritime and Coastguard Agency  
The MCA is an Executive Agency of  
the Department for Transport.

*Under the terms of the United Kingdom Statutory Instrument, No 1957 : 1999, QinetiQ Ltd has been Notified to the European Commission by the Maritime and Coastguard Agency as a Body authorised to conduct Conformity Assessment procedures under the provisions of the European Council Directive 96/98/EC (as amended) on Marine Equipment and issue Certificates of Type Approval.*

# Certificate of Type Approval - Schedule 1

## JRC GMDSS MF/HF 250W Radio Equipment - Type - JSS-296

The applicant declared that the following units comprise the radio equipment designated at a) on page 1. These units have been assessed & tested against the standards stated, and satisfactory details of these units were included in the technical file.

MAIN UNIT Comprising:-

MF/HF Radiotelephone	JSB - 196GM	
250W Power Amplifier Unit	NAH - 692	
DSC /NBDP Terminal	NCT - 196N	*2, 3
Display Unit for Telex (NBDP)	NDZ - 127J	
or Display Unit for Telex (NBDP)	NCH - 1962	
Keyboard	NDF - 268	
Printer Unit	NKG - 800	
Handset	NQW - 213	
Antenna Tuning Unit (250W)	NFC - 296	

Software:	MF/HF Radiotelephone (JSB-196GM)	Version 3.70
	DSC/NBDP Terminal (NCT-196N)	Version 2.12
	Display Unit (NDZ-127J)	Version 3. 01
	or Display Unit (NCH-1962)	Version 0.21

----- End of List.

NOTES:-

1. The system as detailed above is approved as a Class A DSC (digital selective calling) Transceiver for use in the GMDSS, Sea Area A2/A3/A4 as appropriate.
2. The DSC/NBDP terminal is dedicated for use within this system.
3. The DSC/NBDP terminal incorporates a 6 channel MF/HF scanning Watch Receiver.
4. This Certificate supersedes and replaces certificate number QQ-MED-10/08-01, dated 18/04/08.

### Technical Characteristics

PARAMETER		COMMENT
FREQUENCY OF OPERATION	<b>TRANSMIT:</b>	1.605MHz TO 27.5MHz
	<b>RECEIVE:</b>	100kHz TO 29.9999MHz
CHANNELS	--	100Hz Steps - Programmable to all ITU marine Channels.
EMISSION CODE(S)	<b>A1A, F1B, H3E &amp; J3E</b>	2K70J3EJN, 304HF1BCN, 100HA1AAN
DSC CLASS	<b>A</b>	Class A
POWER CHARACTERISTIC	<b>250W (PEP Max)</b>	50 or 250Watt HF (50 or 200Watt MF) 50, or 150 (100 MF) Watt when operating on DC
IEC 61162-1 SERIAL PORTS	<b>Listener - 1 Talker - 0</b>	Conformity to IEC 61162-1:2010. \$**GLL, RMC, VHW, VTG & ZDA Sentences
TEMPERATURE RANGE Exposed & IEC 60945 CLASS Protected	<b>-25°C to +55°C -15°C to +55°C.</b>	-- Antenna Tuning Unit -- All units
POWER SOURCE	<b>100-240V AC 50/60Hz, &amp; 24V DC</b>	All power via NAH-692 (100/120V or 200/240V AC Automatic switch to DC on AC Power failure.

**Conditions of Issue of this certificate are printed on page 4.**

QinetiQ  
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Ively Road, Farnborough  
Hampshire. GU14 0LX

**Certificate Number      QQ-MED-10/08-01R1**

# Certificate of Type Approval - Schedule 1

## JRC GMDSS MF/HF 150W Radio Equipment - Type - JSS-296(150W)

The applicant declared that the following units comprise the radio equipment designated at b) on page 1. These units have been assessed & tested against the standards stated, and satisfactory details of these units were included in the technical file.

MAIN UNIT Comprising:-

MF/HF Radiotelephone	JSB - 196GM	*2
Power Amplifier Unit	NAH - 692	*2
DSC /NBDP Terminal	NCT - 196N	* 3
Display Unit for Telex (NBDP)	NDZ - 127J	
or Display Unit for Telex (NBDP)	NCH - 1962	
Keyboard	NDF - 268	
Printer Unit	NKG - 800	
Handset	NQW - 213	
Antenna Tuning Unit (150W)	NFC - 196	

Software:	MF/HF Radiotelephone (JSB-196GM)	Version 3.70
	DSC/NBDP Terminal (NCT-196N)	Version 2.12
	Display Unit (NDZ-127J)	Version 3. 01
	or Display Unit (NCH-1962)	Version 0.21

----- End of List.

NOTES:-

1. The system as detailed above is approved as a Class A DSC (digital selective calling) Transceiver for use in the GMDSS, Sea Area A2/A3/A4 as appropriate.
2. A factory setting in the controlling software limits the RF power to 150W maximum.
3. The DSC/NBDP terminal incorporates a 6 channel MF/HF scanning Watch Receiver.
4. This Certificate supersedes and replaces certificate number QQ-MED-10/08-01, dated 18/04/08.

### Technical Characteristics

PARAMETER		COMMENT
FREQUENCY OF OPERATION	<b>TRANSMIT:</b>	1.605MHz TO 27.5MHz
	<b>RECEIVE:</b>	100kHz TO 29.9999MHz
CHANNELS	--	100Hz Steps - Programmable to all ITU marine Channels.
EMISSION CODE(S)	<b>A1A, F1B, H3E &amp; J3E</b>	2K70J3EJN, 304HF1BCN, 100HA1AAN
DSC CLASS	<b>A</b>	Class A
POWER CHARACTERISTIC	<b>150W (PEP Limit)</b>	50 or 150Watt HF (50 or 100Watt MF) 50, or 150 (100 MF) Watt when operating on DC
IEC 61162-1 SERIAL PORTS	<b>Listener - 1 Talker - 0</b>	Conformity to IEC 61162-1:2010. \$**GLL, RMC, VHW, VTG & ZDA Sentences
TEMPERATURE RANGE Exposed & IEC 60945 CLASS Protected	<b>-25°C to +55°C -15°C to +55°C.</b>	-- Antenna Tuning Unit -- All units
POWER SOURCE	<b>100-240V AC 50/60Hz, &amp; 24V DC</b>	All power via NAH-692 (100/120V or 200/240V AC Automatic switch to DC on AC Power failure.

**Conditions of Issue of this certificate are printed on page 4.**

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**Certificate Number      QQ-MED-10/08-01R1**

## Certificates of Type Approval Conditions of Issue

1. Each Certificate will be used in its entirety and not reproduced in part.
2. The choice of Notified Body under the Marine Equipment Directive is that of the Manufacturer/Applicant and the following conditions apply whilst the QinetiQ Notified Body fulfils that role.  
This certificate remains fully valid all the time the conditions stated below remain true, Should any change a new Notified Body should be consulted to ascertain their standard conditions appertaining to new or continued MED certification.
3. This certificate remains valid until the date shown (normally 5 years) unless cancelled or revoked, provided:-
  - i) the design and manufacture remain unmodified from the specimen tested and recorded in the Technical Construction File;
  - ii) any conditions contained in the schedule are complied with;
  - iii) Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply;
  - iv) and, the equipment remains satisfactory in service.
4. The mark of conformity (Wheelmark) may only be affixed to the equipment listed on this certificate and a manufacturer's Declaration of Conformity issued when the Production Quality Assurance requirements laid down in Annex B, of the Directive (96/98/EC) is fully complied with and controlled by a written inspection agreement with a Notified Body.  
This certificate alone gives no authority to Affix the Wheelmark or use the QinetiQ Notified Body Number (0191) in combination with it. The manufacturer is responsible for ensuring that Production Quality Assurance requirements & appropriate certification renewal and periodic surveillance are maintained.
5. USCG Approval Number: A Mutual Recognition Agreement (MRA) on marine equipment exists between the European Commission and the US Coastguard but only applies to equipment types included in the listing of marine equipment annexed to the MRA. For included equipment a USCG Approval number may be issued and can be found on page 1 and should be used on the main identity label of the equipment. Radio and Radar equipment continues to need separate or additional approval by the USA FCC. Where the QinetiQ Notified Body is also the Quality Module (D, E or F) assessor for the production year this number is complete. When another notified body performs the Quality module this body should be consulted to ascertain the complete number for the production year. Applicants/manufacturers are advised to consult MarED document 05-163r2 from [WWW.mared.org](http://WWW.mared.org) for guidance.
6. This certificate does not confer any approval status to this equipment other than defined by, and tested according to the MED Item Number, IMO Resolutions and specifications listed on sheet 1.
7. The labeling requirements of IMO Resolution A694(17) shall be met. Descriptions of each unit of apparatus forming part of the equipment will be as given on this Certificate. Each unit of equipment will be marked with the minimum safe distance at which it should be mounted from a standard and steering magnetic compass.
8. No unit of apparatus shall be advertised or labeled as "approved" or "certified" on behalf of the Maritime and Coastguard Agency, the Department of Transport or the QinetiQ Group in any sense other than that it is a type that has been assessed as satisfactory against the specification;
9. The manufacturer must advise QinetiQ or another MED Notified Body of any intended changes to the design or production of the equipment which might affect the equipment performance. Minor Modifications to the equipment will be considered on a case-by-case basis. The Notified Body will review any factory test results, in consultation if necessary, with the test facility that conducted the original Type Approval testing on the equipment. The Notified Body will advise the manufacturer if any further testing is required to maintain valid certification.
10. If an equipment manufacturer wishes to have the type approved equipment designated under alternative names (e.g. agent/distributor's name and model number), a separate application should be made to a MED Notified Body.

QinetiQ Ltd  
Marine Approval and Testing Service  
Cody Technology Park, Ively Road, Farnborough  
Hants, GU14 0LX. United Kingdom